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     (FILE 'HOME' ENTERED AT 11:15:51 ON 16 NOV 2004)

     FILE 'STNGUIDE' ENTERED AT 11:15:54 ON 16 NOV 2004

     FILE 'INSPEC' ENTERED AT 11:16:03 ON 16 NOV 2004
L1         16401 GAN
L2          1645 GALLIUM(A) NITRIDE
L3         16502 L1 OR L2
L4         15503 RIDGE

     FILE 'INSPEC' ENTERED AT 11:18:21 ON 16 NOV 2004
L5        119582 GUID######
L6             8 L3 AND L4 AND L5

     FILE 'CA' ENTERED AT 11:21:41 ON 16 NOV 2004
L7            53 L6
L8           508 INDEX-GUIDED
L9             3 L7 AND L8
L10           14 L3 AND L8

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L6 ANSWER 8 OF 8 INSPEC (C) 2004 IEE on STN
AN 1998:6095590 INSPEC DN A9901-4255P-038; B9901-4320J-046
TI Gain characteristics of InGaN/**GaN** quantum well diode lasers.
AU Song, Y.-K.; Kuball, M.; Nurmikko, A.V. (Div. of Eng., Brown Univ., Providence, RI, USA); Bulman, G.E.; Doverspike, K.; Sheppard, S.T.; Weeks, T.W.; Leonard, M.; Kong, H.S.; Dieringer, H.; Edmond, J.
SO Technical Digest. Summaries of Papers Presented at the Conference on Lasers and Electro-Optics. Conference Edition. 1998 Technical Digest Series, Vol.6 (IEEE Cat. No.98CH36178)
Washington, DC, USA: Opt. Soc. America, 1998. p.224 of 559 pp. 8 refs.
Conference: San Francisco, CA, USA, 3-8 May 1998
Sponsor(s): IEEE/Lasers & Electro-Opt. Soc.; OSA-Opt. Soc. America; Quantum Electron. Div. Eur. Phys. & Opt. Soc.; Japanese Quantum Electron. Joint Group
Price: CCCC 1 55752 521 8/98/$15.00
ISBN: 1-55752-339-0
DT Conference Article
TC Experimental
CY United States
LA English
AB We report on gain spectra of InGaN/AlGaN MQW SCH diode lasers, grown and fabricated on 6H-SiC substrates. The active medium was composed of 8 QWs with a nominal indium composition of x=0.1. The devices were index **guided ridge** waveguide structures with a typical cavity length of 500 mu m and a mesa width of 5 mu m. The gain studies are based on the analysis of the spontaneous emission spectra of the devices, collected normal to the resonator axis as a function of injection, while making use of fundamental connections between spontaneous emission, stimulated emission, and absorption. An example of the gain/absorption spectra in the InGaN MQW diode laser at room temperature is shown.
CC A4255P Lasing action in semiconductors; A4260B Design of specific laser systems; B4320J Semiconductor lasers
CT GALLIUM COMPOUNDS; III-V SEMICONDUCTORS; INDIUM COMPOUNDS; QUANTUM WELL LASERS; SPONTANEOUS EMISSION; STIMULATED EMISSION; WAVEGUIDE LASERS
ST **InGaN/GaN quantum well diode lasers**; gain characteristics; MQW SCH diode lasers; 6H-SiC substrates; **index guided ridge waveguide structures**; spontaneous emission spectra; stimulated emission; gain/absorption spectra; room temperature; InGaN-AlGaN; SiC
CHI InGaN-AlGaN int, AlGaN int, InGaN int, Al int, Ga int, In int, N int, AlGaN ss, InGaN ss, Al ss, Ga ss, In ss, N ss; SiC sur, Si sur, C sur, SiC bin, Si bin, C bin
ET Ga*In*N; Ga sy 3; sy 3; In sy 3; N sy 3; InGaN; In cp; cp; Ga cp; N cp; Ga*N; GaN; Al*Ga*N; Al sy 3; AlGaN; Al cp; C*H*Si; is; H is; 6H; SiC; Si cp; C cp; 6H-SiC; V; H-SiC; Al*Ga*In*N; Al sy 4; sy 4; Ga sy 4; In sy 4; N sy 4; InGaN-AlGaN; C*Si; Al; Ga; In; Si

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L7: Entry 109 of 115 File: EPAB May 31, 2000

PUB-NO: EP001005124A2
DOCUMENT-IDENTIFIER: EP 1005124 A2
TITLE: Semiconductor light emitting device and its manufacturing method

PUBN-DATE: May 31, 2000

INVENTOR-INFORMATION:

NAME	COUNTRY
YAMAGUCHI, TAKASHI	JP
KOBAYASHI, TOSHIMASA	JP
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KOBAYASHI, TAKASHI	JP
ASATSUMA, TSUNENORI	JP
ASANO, TAKEHARU	JP
HINO, TOMONORI	JP

ASSIGNEE-INFORMATION:

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APPL-NO: EP99123523
APPL-DATE: November 25, 1999

PRIORITY-DATA: JP33585398A (November 26, 1998)

INT-CL (IPC): H01 S 5/323; H01 S 5/223; H01 L 33/00
EUR-CL (EPC): H01S005/323

ABSTRACT:

CHG DATE=20000704 STATUS=O> A GaN compound semiconductor laser includes an AlGaN buried layer which buries opposite sides of a ridge stripe portion formed on a p-type AlGaN cladding layer. The AlGaN buried layer is made by first patterning an upper part of the p-type AlGaN cladding layer and a p-type GaN contact layer into a ridge stripe configuration by using a SiO2 film as an etching mask, then growing the AlGaN buried layer non-selectively on the entire substrate surface to bury both sides of the ridge stripe portion under the existence of the SiO2 film on the ridge stripe portion, and thereafter selectively removing the AlGaN buried layer from above the ridge stripe portion by etching using the SiO2 film as an etching stop layer. Thus, the GaN compound semiconductor laser is stabilized in the transverse mode, intensified in output power, and improved in lifetime.

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L7: Entry 110 of 115 File: EPAB Jan 12, 2000

PUB-NO: EP000971465A1
DOCUMENT-IDENTIFIER: EP 971465 A1
TITLE: COMPOUND SEMICONDUCTOR LASER

PUBN-DATE: January 12, 2000

INVENTOR-INFORMATION:

NAME	COUNTRY
TAKATANI, KUNIHIRO	JP

ASSIGNEE-INFORMATION:

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SHARP KK	JP

APPL-NO: EP98910983
APPL-DATE: March 25, 1998

PRIORITY-DATA: JP07477997A (March 27, 1997)

INT-CL (IPC): H01 S 5/223; H01 S 5/323
EUR-CL (EPC): H01S005/223; H01S005/323

ABSTRACT:

CHG DATE=20031205 STATUS=O> A compound semiconductor laser of a III group nitride semiconductor of the present invention includes a first cladding layer 104 of a first conduction type formed on a substrate 101, an active layer 106 formed on the first cladding layer, a second cladding layer 108 of a second conduction type formed on the active layer 106, and a buried layer 110 formed on the second cladding layer 108, the buried layer having an opening portion for constricting a current in a selected region of the active layer, wherein an upper portion of the second cladding layer 108 has a ridge portion, the ridge portion residing in the opening portion of the buried layer 110, and the buried layer 110 does not substantially absorb light output from the active layer 106, and the buried layer has a refractive index which is approximately identical with that of the second cladding layer 108.

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L7: Entry 111 of 115 File: EPAB Oct 8, 1998

PUB-NO: WO009844606A1
DOCUMENT-IDENTIFIER: WO 9844606 A1
TITLE: COMPOUND SEMICONDUCTOR LASER

PUBN-DATE: October 8, 1998

INVENTOR-INFORMATION:

NAME	COUNTRY
TAKATANI, KUNIHIRO	JP

ASSIGNEE-INFORMATION:

NAME	COUNTRY
SHARP KK	JP
TAKATANI KUNIHIRO	JP

APPL-NO: JP09801308
APPL-DATE: March 25, 1998

PRIORITY-DATA: JP07477997A (March 27, 1997)

INT-CL (IPC): H01 S 3/18
EUR-CL (EPC): H01S003/19

ABSTRACT:

A compound semiconductor laser made of a III nitride semiconductor, comprising a first clad layer (104) of first conductivity type on a substrate (101), an active layer (106) on the first clad layer, a second clad layer (108) of second conductivity type on the active layer (106), and a buried layer (110) formed on the second clad layer (108) and having an aperture for constricting a current into a selected region in the active layer. The second clad layer (108) has a ridge portion on an upper part thereof, and the ridge portion is located inside the aperture of the buried layer (110). The buried layer (110) does not substantially absorb a light emitted from the active layer (106) and has a refractive index of substantially the same as that of the second clad layer (108).

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WEST Search History

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DATE: Tuesday, November 16, 2004

Hide?	Set Name	Query	Hit Count
	DB=EPAB; PLUR=YES; OP=OR		
☐	L9	WO-9844606-A1.did.	1
☐	L8	WO-9844606-A1.did.	1
	DB=PGPB,USPT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
☐	L7	l4 and l5 and l6	115
☐	L6	bur$5 adj(layer or film)	15888
☐	L5	ridge$2	196588
☐	L4	L3 or l2 or l1	30188
☐	L3	nitride adj3 semiconductor	14613
☐	L2	gan	17322
☐	L1	gallium adj nitride	7784

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